

SUDAS Revision Submittal Form

Status Date: As of 11/5/2021 **Topic:** PCC paving updates
Manual: Specifications **Manual Location:** Section 7010, 2.01, H and 3.01, C, 2, h
Section 7011, 3.02, J, 1, e
Section 7040, 3.03, B, 5

Requested Revision:

Section 7010 - Portland Cement Concrete Pavement

2.01 MATERIALS

H. Bars: Comply with [Iowa DOT Section 4151](#) for [metallic](#) tie bars and dowel bars [or Iowa DOT Section 4156](#) for glass fiber reinforced polymer dowel bars. Meet the tie bar requirements for bar mats. All [metallic](#) bars must be epoxy coated.

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3.01 EQUIPMENT

C. Concrete Placement Equipment:

2. Vibrators for Machine Paving:

- h. Mount the longitudinal axis of the vibrator body approximately parallel to the direction of paving. Tilt the trailing end of each vibrator downward to ~~an approximate~~ [a](#) slope of ~~15~~ [10 to 30](#) degrees below horizontal.

Section 7011 - Portland Cement Concrete Overlays

3.02 CONSTRUCTION

J. Saw Joints:

1. **General:** Submit a plan for the Engineer's approval, which includes the following items.
 - a. Method(s) for assuring adequate sawcut depth in areas of variable concrete overlay thickness.
 - b. Anticipated production rate of concrete overlay placement.
 - c. Estimated number of saws necessary to prevent random cracking.
 - d. Appropriate corrective actions should random cracking occur.
 - e. [Seal all joints unless directed otherwise.](#)

Section 7040 - Pavement Rehabilitation

3.03 PARTIAL DEPTH PATCHING

B. PCC Patch Placement:

5. Apply joint filler material to expansion joints. At the interface between the patch and the slab, apply sand-cement grout to fill and seal the edge. [Position the grout so 1 inch is over the surrounding pavement and 3 inches are over the patch.](#)

Reasons for Revisions:

- 1) Steel dowels have been in short supply the past construction season and the addition of this item offers another viable option to provide load transfer in PCC pavements. Requirements have been derived from guidance from ACPA, research reports, and existing ASTM standards. It is anticipated that an ASTM standard for glass fiber polymer reinforced dowels will be released. Clarified that only metallic bars must be epoxy coated.
- 2) Not all pavers have vibrators at approximately 15 degrees from horizontal; therefore, providing an acceptable range allows for accommodation of different equipment and setups while not compromising the intent of having the vibrator body immersed in the concrete pavement to provide an effective zone of vibratory influence.
- 3) Sealing joints is not directly addressed on Figure 7010.101 (PV-101). Iowa DOT staff has noted that several projects have been constructed without sealing joints. Adding the sealing requirement will clarify the clear intent.
- 4) Edges of patches can sometimes have voids or pull slightly away from the pavement interface. The grout provides a seal of the edges of the pavement patch interface. This method is used and specified by MnDOT, who developed partial depth patch repair procedures.

Comments: Revisions in cooperation with Iowa DOT.

District:	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 4	<input checked="" type="checkbox"/> 5	<input checked="" type="checkbox"/> 6	October 2021 Webinars
Comments:	None.						
Action:	<input type="checkbox"/> Deferred		<input type="checkbox"/> Not Approved		<input checked="" type="checkbox"/> Approved		

Final District Action Summary: All 6 districts approved.

Board of Directors Action: Approved.